SecureStream Technology

User Manual

Microphone DM-10

English

COMFORTaudio

User Manual

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Introduction to the Comfort Digisystem

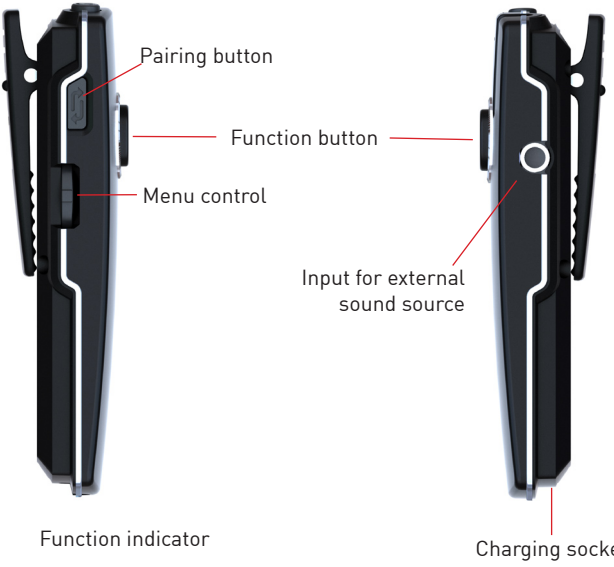
Thank you for choosing Comfort Digisystem.
The products are easy to use, whether you use a hearing aid or not.

Before using the product, please read this User Manual carefully.

Using the Microphone DM-10 transmitter, the signal is transferred digitally, resulting in an excellent clear sound.

Comfort Digisystem is fitted with SecureStream Technology – a type of digital technology allowing eaves-drop-secure radio transfer in real time.

Functions of the Microphone DM-10



Display Microphone DM-10

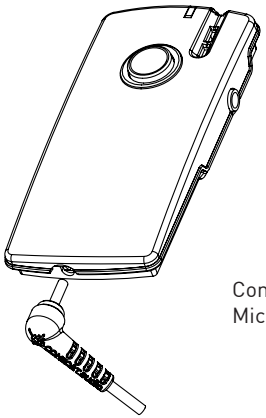
Getting Started

Charging

The Microphone DM-10 is chargeable. Charge the DM-10 at least two hours before you use it for the first time. An empty battery is fully charged within two hours.

During charging, the function indicator shows red and a lightning bolt appears through the battery symbol in the display. Once the battery symbol is filled with green columns and the functions indicator shows green the unit is fully charged and switches to automatic float charging.

A fully charged battery has an operating time of up to ten hours. Battery lifetime is up to five years. You must not change the battery yourself; please contact your point of purchase.



Connecting a charger to the Microphone DM-10

Please note:
Only use the charger supplied by Comfort Audio AB.

First Time Use

Switch on the transmitter by pressing the On/Off button for around two seconds.

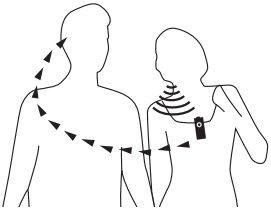
Connect clip-on-microphone or any other microphone if desired.

The microphone DM-10 is a microphone for closer range. It works best within approx. 30 cm.

The clip-on-microphone can be attached to your clothes with its clip.

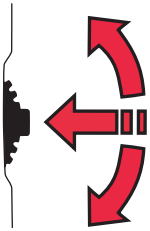
DM-10 can be attached with its clip or carried around the neck with the delivered neck loop (2 lengths available).

Other functions are explained later in this manual.



Menu

Menu control
Three different selections can be made:



Scroll up

Press/select

Scroll down

To access the menu, press the menu control:

Back
Communication
- ↳ *Channel*
- ↳ *Pairing*

Function
- ↳ *Silence button*
- ↳ *Push to talk*
- ↳ *Push/Cont.*
- ↳ *FCR*
- ↳ *FCR indicator*

Settings
- ↳ *PIN-code*
- ↳ *Charging*
- ↳ *Language*
- ↳ *Name*
- ↳ *Input*

Key lock
About

Back (relates to both the main menu and submenus)
Here you can choose to return to the menu and to the main display.

Communication
Channel
To use the receiver and the transmitter together, they must be set to the same channel. The transmitter and receiver are set to the default channel by the manufacturer.(This does not apply to units with both sender and receiver. In this case the transmitter/receiver are adjusted as described in chapter *Radio range and Channels*). To change channel, select **Channel** in the menu. Choose transmitter or receiver (this applies only to units with both transmitter and receiver). Select a new channel using the menu control.

Channel information is also given when the units are paired. Channels 1, 2 and 3 are free channels in most European countries that do not require a licence. Under **Extended** more channels can be selected, but these usually require a licence – see the section *Radio range and Channels*.

FFC (Free Frequency Check) indicates in green the suitable frequencies for the specific environment. Please note! Switch off your other Digisystem transmitters for correct result.

Pairing
To use a receiver and transmitter together, they must be paired. All transmitters and receivers are default paired at the factory and will work together. To prevent eavesdropping, a new code key must be generated and transmitted between the units by pairing.

Transmitting/receiving of pairing information along with a

new code can be performed from any Comfort Digisystem unit with a display. To pair units without a display, see sections *Pairing (via pairing button)* and *Pairing (Connector DT-10)* for more information. Pairing information or a new code key can be received by several activated units.

Comfort Digisystem units with both transmitters and receivers built-in can be paired separately. When opening the pairing menu, choose the concerning unit (transmitter/receiver). In units with both transmitters and receivers, the pairing button controls the transmitter. The transmitter and receiver are paired separately in these units. The code key is always the same for the transmitter and the receiver when these are built-in in the same unit. The easiest way to get the same code key in the whole Digisystem, when using units with both transmitter and receiver built-in, is to generate a new code key from the combined unit; in that way the built-in receiver gets the same code as the rest of the system.

Pairing (via menu)
Select **Receive info** on one unit. **Ready to receive pairing info** is shown in the display. Select **New code** on the other unit; select **Yes**. **Generate new code and send info?** is shown in the display. Select **Yes** (Now both the channel and the coding information have been sent, and sound transfer is eavesdrop-secure). To pair another unit into your coded system, select **Send info** instead on one of your paired units.

Pairing (via pairing button)
(The only way of pairing units without a display, with the pairing button)
You can activate the Pairing function via the pairing button. One brief press of the button opens the *Pairing* menu. Two brief presses activate the **Send info** function. One long press activates the **Receive info** function.

Pairing (Connector DT-10)
The connector cannot send information, only receive it. To activate the position **Receive info**, the connector must be in operation (position I or II) and connected to an operating hearing aid. The selector is then quickly moved to position 0 and back to the operating position (I or II). The connector can now receive pairing info. If no info is received by the connector, after a short time this returns automatically to the previous setting.

Function
Here you can adjust the function button. If no choice has been made, the microphone sends continuously the sound it takes up.

More settings are possible, see below. The chosen setting shows in the display. For more information about the function indicator see *More functions*.

Silence button
In this setting you can shut off the microphone so that no sound is sent when you press the function button.

Push to talk
DM-10 only sends when you press the function button.

Push/Cont
In this setting DM-10 works like described above under *Push to talk*, but by pressing the menu control down (scrolling down) the microphone is switched to send continuously the sound it takes up.
This function may be useful when it is impossible to press the function button, e.g. during lectures or presentations etc.

FCR (Free Channel Request)
This function prevents DM-10 from sending on frequen-

cies which are already taken by other transmitters, e.g. when several DM-10 are set on **Push to talk**.

If transmission is not possible, this is shown in the display together with the function indicator. Is the function button pressed in and transmission is not possible, press the function button again and try to send again (it is not enough to keep the button pressed).

FCR Indicator
Is the FCR indicator activated, the function indicator shows red if the channel is occupied – even if the function button is not pressed.

Settings
PIN code
Here you can turn the PIN code function on and off (selected functions lock).
Under the menu item **Change PIN** you can create your own PIN code.
Under the menu item **Lock Select**, you can select different types of menu locks:
- *Function button: Locks all functions in the "Function button" menu (can be combined with the "Pairing" menu item)*
- *Pairing: Locks all pairing functions in the unit, as well as the pairing button*
- *All menus: Locks all menus*

The PIN code is needed to be able to unlock selected functions when PIN code has been activated.

If you forget your PIN code, please contact your point of purchase to unlock the unit.

Charging
Here you can activate the **Auto Power Off** function to shut

down the unit automatically during charging.

Language
Here you can select the menu language.

Name
Here the text to be displayed is selected. Choose symbols with the menu control. Select ✓ to save and x to close without saving. To move the cursor during editing, use the symbols > and <.

Input
Here you can choose which additional input should be used.
- Extern Mic (for external microphones, e.g. clip-on-microphones)
- Line-in (e.g. for TV- or PC-cable)
You can even adjust the level for Extern Mic and Line-in in this menu.

Key lock
Here you can activate the key lock and thereby lock all buttons. Once the key lock has been activated, **Unlock keys?** appears in the display. Select **Yes** to unlock.

About
Here you find software information.

More Functions

Function indicator (LED)
The function indicator shows the unit's status, depending on its setting.

On normal operation, the indicator flashes once every three seconds.

During charging the indicator shows red.
When the charging is completed, the indicator shows green.

When the battery level gets low, the indicator slowly flashes red (check the battery status on the display).

Once the unit has been set to receive pairing information, the indicator flashes green quickly.

When receiving pairing information, the indicator shows green for three seconds.

When sending pairing information, the indicator flashes red five times.

When using the **Push to talk**-function, the indicator shows green when transmission is possible and the microphone has been activated. If transmission is not possible because the channel is occupied (how to use FCR, see section *Function*), the function indicator shows red.

Is **FCR indicator** activated, the function indicator shows red when the channel is occupied.

When using the function **silence button**, the indicator shows red.

Coloured clips
A number of different coloured clips are available to replace the black cover. This might be useful if you use several microphones at the same time.

Radio Range and Channels

The transmitter and receiver have built-in antennas. The radio range between the units is around 30 metres. This may however vary depending on the particular environment you are in. Like all radio systems, Comfort Digisystem communicates on specific channels. If you use two transmitters on the same channel or a neighbouring one, there may be interference. Other electronic equipment can also interfere with radio transmissions.

In most European countries, channels 1-3 (863.250 – 864.750 MHz) may be used for hearing products. However, you should always check with the frequency assignment authority in your own country which channels are free and which require a licence.

In addition to channels 1-3, under **Extended** there are several channels in bands A-F, which require a licence in most European countries:

A 768 - 790 MHz
B 854 - 863 MHz
C 790 - 800 MHz
D 800 - 820 MHz
E 820 - 854 MHz
F 865 - 872 MHz

Original Accessories

Car charger
The car charger is designed for cars with a 12 volt (-) earthed electrical system. The charger has short-circuit and automatic overload protection. Disconnect the charger from the socket after use.

Head-microphone
Microphone which can be attached around the head

Ear-microphone
Microphone which can be attached around an ear

Charging stand
The charging stand is connected to the provided charger. Several charging stands can be connected and used with one charger. If you use more than two charging stands, a bigger charger is necessary.

Desk stand
Desk stand for the Microphone DM-10.

For other accessories, please visit our website,
www.comfortaudio.com

Trouble Shooting

The transmitter and receiver do not start
Charge the transmitter and receiver. Remember to press the On/Off button down for 2 seconds to switch the unit on. Check that the charger is connected to the plug socket.

Poor speech intelligibility
The distance between the transmitter and the receiver may be too long. The range is around 30 metres. The distance between the microphone and the person who is talking may also be too long; move the microphone nearer to the person talking. Try to change channel/ environment.

Poor range and interference
In some environments involving e.g., concrete, iron or sheet metal structures, the range may be reduced. There may also be equipment nearby causing interference. Change channel.

No sound
Check that the transmitter and receiver are set to the same channel.

Loud hissing noise (no sound transfer)
Check that the units are paired.

The unit will not start during charging
Disconnect the charger. Check the selection **Auto power off** under **Charging** in the menu.

Service and Warranty

Comfort Audio AB provides a comprehensive warranty for two years as from the date of delivery. This covers all defects of manufacture and materials. Defects caused by careless handling or intervention inside the product or its accessories are not covered by the warranty.

Under normal use, battery lifetime is up to five years. Contact your point of purchase once it is time to change the battery.

You are always welcome to contact us at Comfort Audio if you have any questions.

Technical Data

Type of transmitter:	SST – SecureStream Technology
Range:	Approx. 30 m
Dimensions:	84 x 39 x 14 mm
Weight:	45 g
Frequency range:	768 - 872 MHz
Antenna:	Built-in
Operating time:	Up to ten hours
Battery:	Chargeable Li-Polymer
Charging time:	Approx. two hours
Microphone:	Built-in
External input:	Mic/Line in

Important Safety Instructions - Read these before using your product

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not use near any heat sources such as radiators heat registers stoves, or other apparatus (including amplifiers) that produce heat.
8) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet consult an electrician for replacement of the obsolete outlet. (Only when using polarized plug)
9) Protect the power cord from being walked on or pinched particularly at plugs convenience receptacles. and the point where they exit from the apparatus.
10) Only use attachments/accessories specified by Comfort Audio AB.
11) Unplug this apparatus during lightning storms or when unused for long periods of time.
12) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as power-supply cord or plug is damaged liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture does not operate normally or has been dropped.
13) Start listening at a low volume.
14) Too high a volume can seriously damage your

hearing.

15) Don't dissasemble the product.
16) Should the product break open because of damage, service should only be done by qualified service personnel.
17) Never use a transmitter or receiver set to a non-permitted frequency. Check with the frequency authority in the country where the equipment is to be used.
18) The product contains sensitive electronic equipment and must be handled carefully.
19) Never charge product in closed, unaired spaces such as handbags, cases or other closed storage bags.
20) Only use batteries and power supply specified by Comfort Audio AB.
21) You must not change the battery yourself; please contact your point of purchase.
22) CAUTION! Danger of explosion if battery is incorrectly replaced.
23) The product shall not be exposed to excessive heat such as sunshine, fire or the like.

Subject to change

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